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United States Patent [19]**Thies et al.**[11] **Patent Number:** **5,909,743**[45] **Date of Patent:** **Jun. 8, 1999**[54] **AUTOMATIC PURGE FILTRATION SYSTEM FOR A DISHWASHER**[75] Inventors: **Edward L. Thies, Niles; Roger J. Bertsch, Stevensville; Wilbur W. Jarvis, St. Joseph, all of Mich.**[73] Assignee: **Whirlpool Corporation, Benton Harbor, Mich.**[21] Appl. No.: **08/927,706**[22] Filed: **Sep. 10, 1997**[51] Int. Cl.⁶ **A47L 15/46**[52] U.S. Cl. **134/10; 134/18; 134/25.2; 134/56 D; 134/104.1; 134/104.4; 134/111; 134/115 G**[58] Field of Search **134/10, 18, 25.2, 134/56 D, 57 D, 104.1, 104.4, 111, 115 G**[56] **References Cited****U.S. PATENT DOCUMENTS**

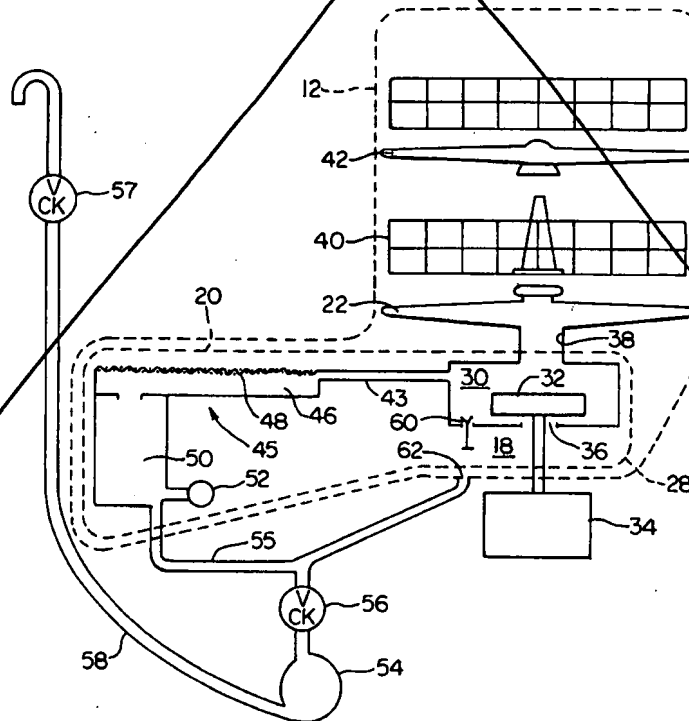
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Primary Examiner—Philip R. Coe
Attorney, Agent, or Firm—Joel M. Van Winkle; Stephen D. Krefman; Robert O. Rice

[57] **ABSTRACT**

A dishwasher pump and automatic purge system which includes a wash impeller supported for rotation within a pump chamber wherein the pump chamber has a main outlet and a sample outlet port. Wash liquid pumped out through the main outlet is recirculated throughout the dishwasher interior wash chamber. A soil collector receives wash liquid through the sample outlet port. The soil collector includes a filter screen for returning filtered wash liquid back into the sump such that soils are retained in the soil collector. Pressure within the soil collector is sensed by a pressure sensor. The soil collector is purged by a drain pump when the pressure within the soil accumulator exceeds a predetermined limit level such that soils are cleared from the collector and the filter screen. When the pressure within the soil accumulator is reduced to below the predetermined limit level, the drain pump is deenergized. A control valve is provided for preventing fluid flow from the dishwasher sump to the drain pump during the purge operation while the wash pump is operating. The control valve is operated in response to fluid pressure created by the wash impeller.

28 Claims, 7 Drawing Sheets



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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

STINSON, FRANKIE L

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Please find below and/or attached an Office communication concerning this application or proceeding.

Application/Control Number: 10/237,093

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Art Unit: 1746

1. The indicated allowability of claims 2-4, 9-16 and 18-20 is withdrawn in view of the newly discovered reference(s) to EPO'815, Germany'274, Warren and Price et al. Rejections based on the newly cited reference(s) follow.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, 9-11 and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either EPO'815 (European Patent Office 521,815) or Germany'274 (Germany 34 43 274).

Re claim 1, note the EPO'815 and Germany each disclose a dishwasher, comprising:

a casing (4 in EPO'815 and 1 in Germany'274) arranged within the dishwasher;

an odor eliminating material (11 in EPO'815 and 4 in Germany'274), which eliminates odors in the dishwasher, installed within the casing;

a shutter (18 in EPO'815 and 2 in Germany'274) which selectively opens a part of the casing to expose the odor eliminating material; and a shutter driving device (8 in EPO'815, and "twisting" means in Germany'274) which operates the shutter.